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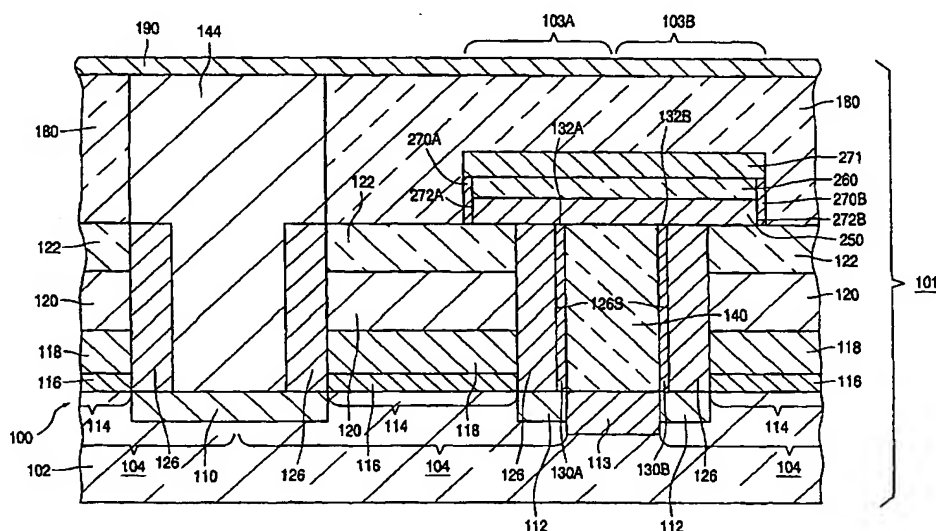
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LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
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[Continued on next page]

(54) Title: ELECTRIC DEVICE COMPRISING PHASE CHANGE MATERIAL



(57) Abstract: The electric device (1, 100) comprises a resistor (36, 250) comprising a phase change material which is able to be in a first phase and in a second phase. The resistor (36, 250) has an electrical resistance which has a first value when the phase change material is in the first phase and a second value when the phase change material is in the second phase. The resistor (36, 250) is electrically connected to a first conductor (3, 130A, 130B) and a second conductor (4, 270), which are able to conduct a current for heating of the phase change material to enable a transition from the first phase to the second phase. The electric device (1, 100) further comprises a layer (20, 39, 126, 140, 260) of a dielectric material for reducing a heat flow to parts of the body (2, 101) free of the resistor (36, 250) during the heating, which dielectric material according to the invention comprises a porous material with pores having a size between 0.5 and 50 nm.

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In<sup>n</sup> tional Application No  
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## A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX, IBM-TDB

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 825 046 A (KLERSY PATRICK ET AL) 20 October 1998 (1998-10-20)	1-4,8-12
Y	column 4, lines 32-39; figure 1 column 5, lines 18-50 column 6, lines 30-33 column 9, lines 17-25 column 10, lines 3-43	5-7
X	WO 99/54128 A (ENERGY CONVERSION DEVICES INC) 28 October 1999 (1999-10-28) page 14, line 24 - page 22, line 9; figures 1-3	1-4,8-12
P,X	US 2003/146469 A1 (MATSUOKA HIDEYUKI ET AL) 7 August 2003 (2003-08-07) paragraphs '0046! - '0051!, '0053!, '0063!, '0069!, '0070!, '0072!, '0073!; figures 6,12,24,25	1-5,8-12
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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P,X	EP 1 318 552 A (ST MICROELECTRONICS SRL ; OVONYX INC (US)) 11 June 2003 (2003-06-11) paragraphs '0026! - '0049!; figures 7,12 -----	1-5,8-12
Y	US 2002/134995 A1 (WANG HUANTING ET AL) 26 September 2002 (2002-09-26) paragraphs '0002!, '0007!, '0031!, '0050! -----	5-7
A	WO 00/39028 A (BATTELLE MEMORIAL INSTITUTE ; BIRNBAUM JEROME C (US); COYLE CHRISTOPHE) 6 July 2000 (2000-07-06) pages 2-8 -----	5-7

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International Application No

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